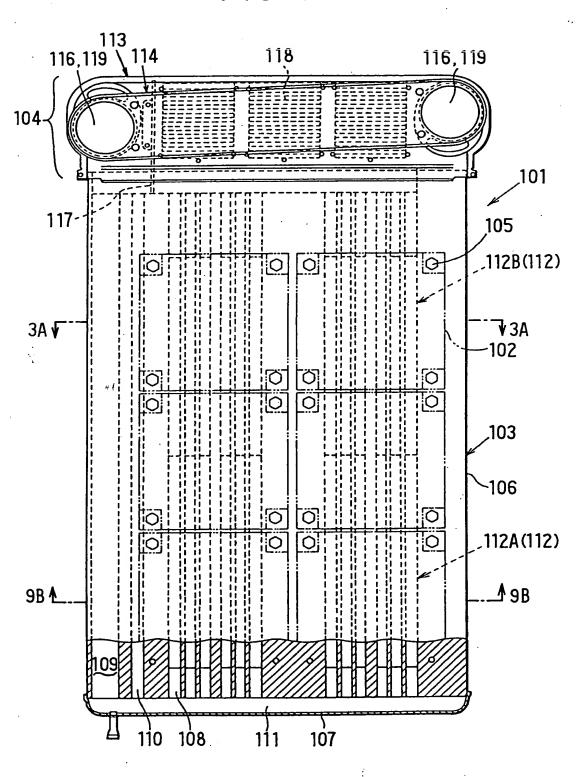
Atty. Ref. No.: 4041J0229DVA

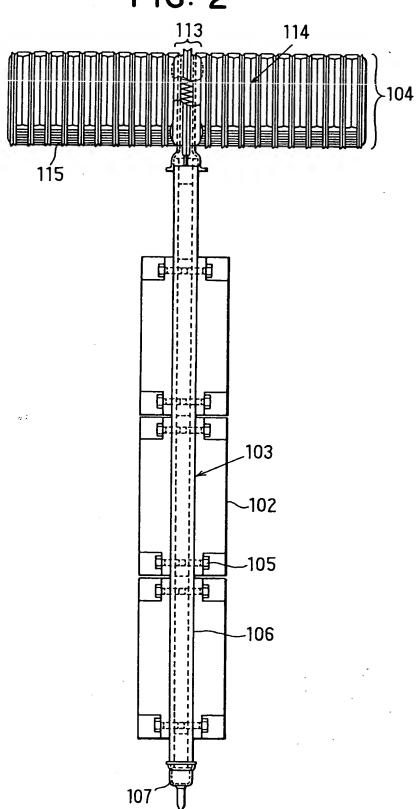
1/73

## FIG. I



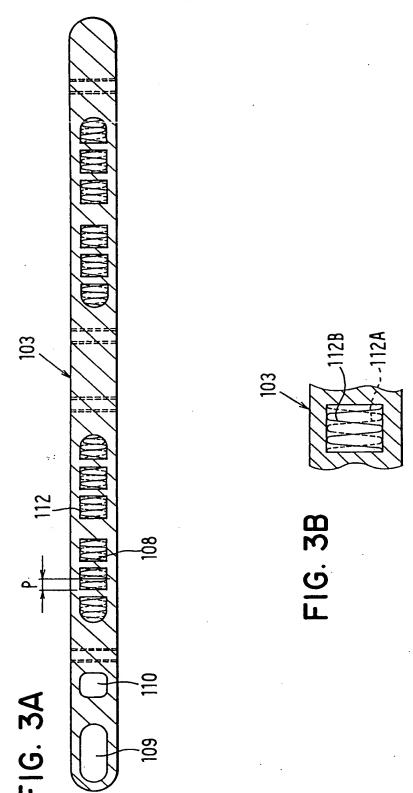
Title: Cooling Apparatus Boiling and Condensing Refrigerant
Inventor: Hiroyuki Osakabe
Natiael J. Schmidt, Harness, Dickey & Pierce,
Atty. Ref. No.: 4041J0229DVA

FIG. 2



Title: Cooling Apparatus Boiling and Condensing Refrigerant
Inventor: Hiroyuki Osakabe
Archael J. Schmidt, Harness, Dickey & Pierce, Policy and Property of the Condensing Refrigerant
Inventor: Hiroyuki Osakabe

Atty. Ref. No.: 4041J0229DVA



Title: Cooling Apparatus Boiling and Condensing Refrigerant
Inventor: Hiroyuki Osakabe
Micrael J. Schmidt, Harness, Dickey & Pierce, Patty. Ref. No.: 4041J0229DVA

FIG. 4

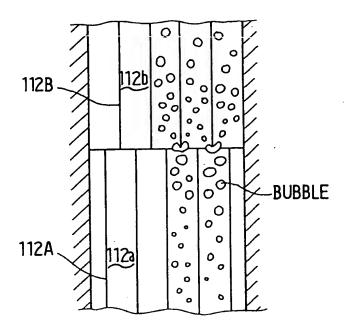
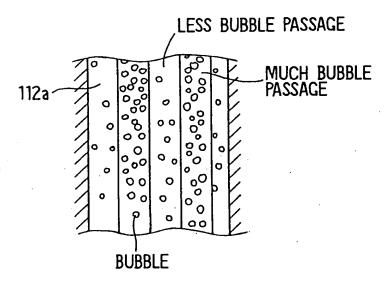
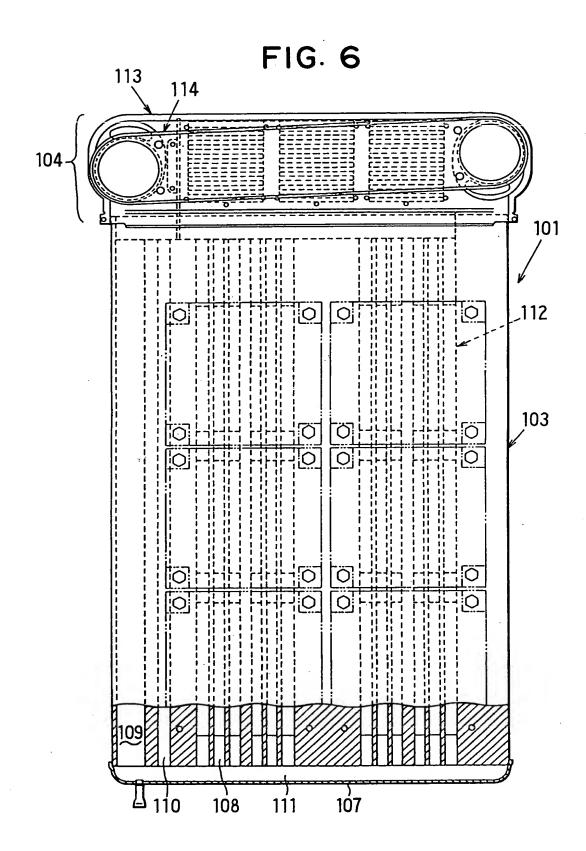


FIG. 5



Title: Cooling Apparatus Boiling and Condensing Refrigerant Inventor: Hiroyuki Osakabe hael J. Schmidt, Harness, Dickey & Pierce, P Atty. Ref. No.: 4041J0229DVA



Title: Cooling Apparatus Boiling and Condensing Refrigerant
Inventor: Hiroyuki Osakabe
Manael J. Schmidt, Harness, Dickey & Pierce,
Atty. Ref. No.: 4041J0229DVA

FIG. 7

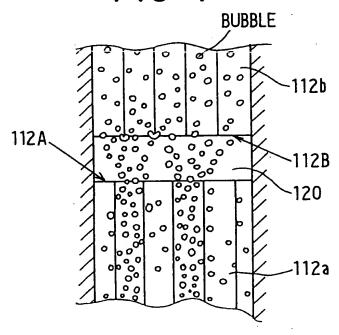
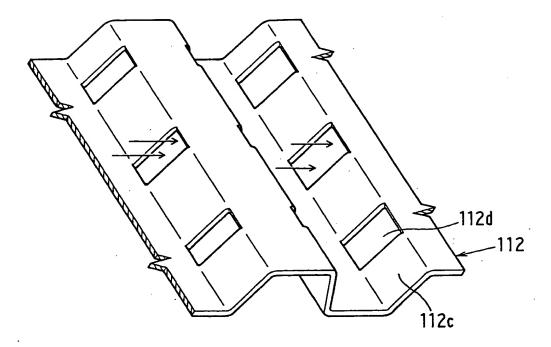
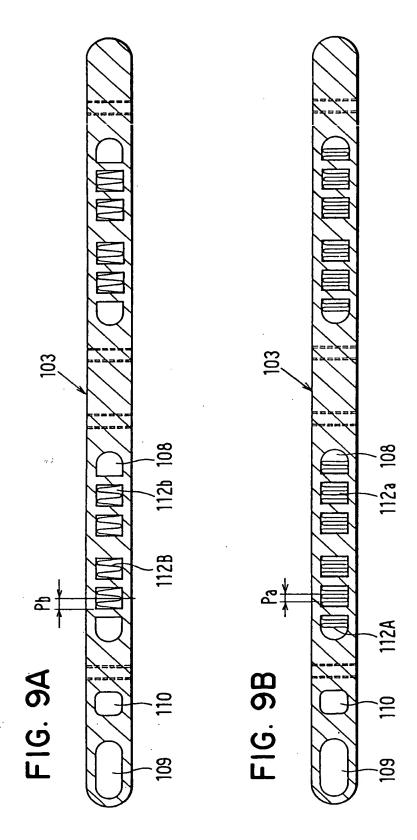


FIG. 8



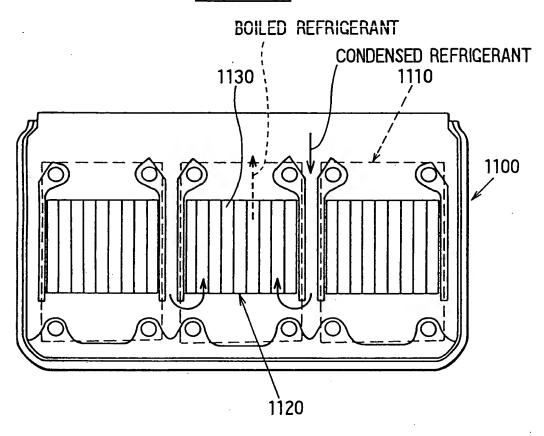
Title: Cooling Apparatus Boiling and Condensing Refrigerant
Inventor: Hiroyuki Osakabe
Natiael J. Schmidt, Harness, Dickey & Pierce,
Atty. Ref. No.: 4041J0229DVA



Title: Cooling Apparatus Boiling and Condensing Refrigerant
Inventor: Hiroyuki Osakabe
N. Aael J. Schmidt, Harness, Dickey & Pierce,
Atty. Ref. No.: 4041J0229DVA

8/73

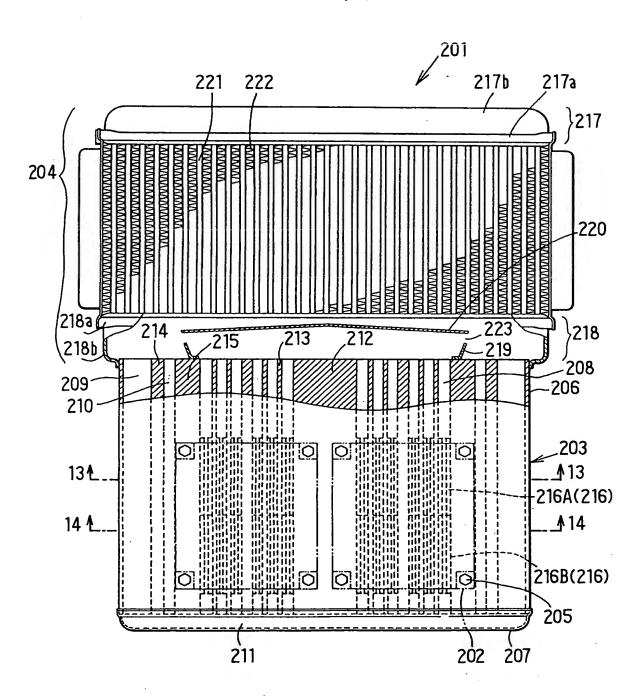
## FIG. 10 PRIOR ART



Title: Cooling Apparatus Boiling and Condensing Refrigerant
Inventor: Hiroyuki Osakabe
Manael J. Schmidt, Harness, Dickey & Pierce,

Atty. Ref. No.: 4041J0229DVA

FIG. 11



Title: Cooling Apparatus Boiling and Condensing Refrigerant
Inventor: Hiroyuki Osakabe
Michael J. Schmidt, Harness, Dickey & Pierce,

Atty. Ref. No.: 4041J0229DVA

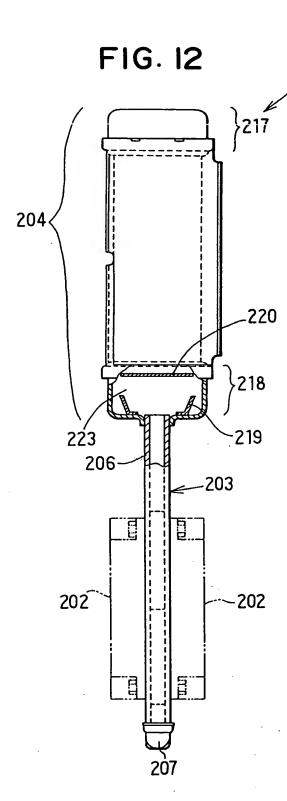
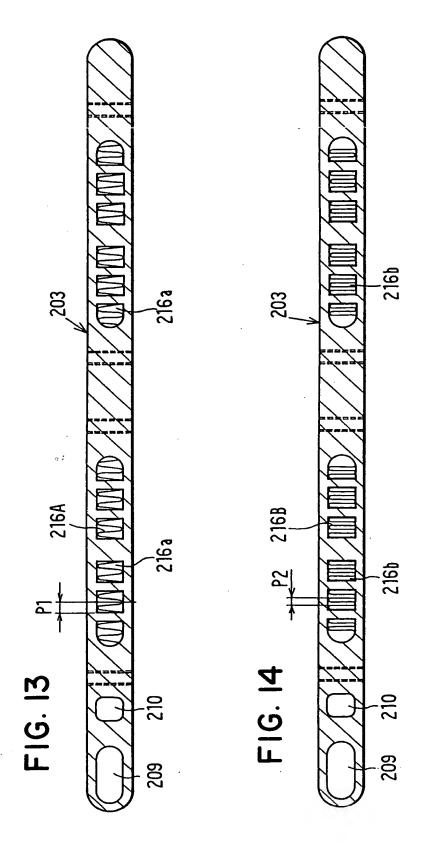


FIG. 15 -206 207

Title: Cooling Apparatus Boiling and Condensing Refrigerant
Inventor: Hiroyuki Osakabe
Nadel J. Schmidt, Harness, Dickey & Pierce,
Atty. Ref. No.: 4041J0229DVA



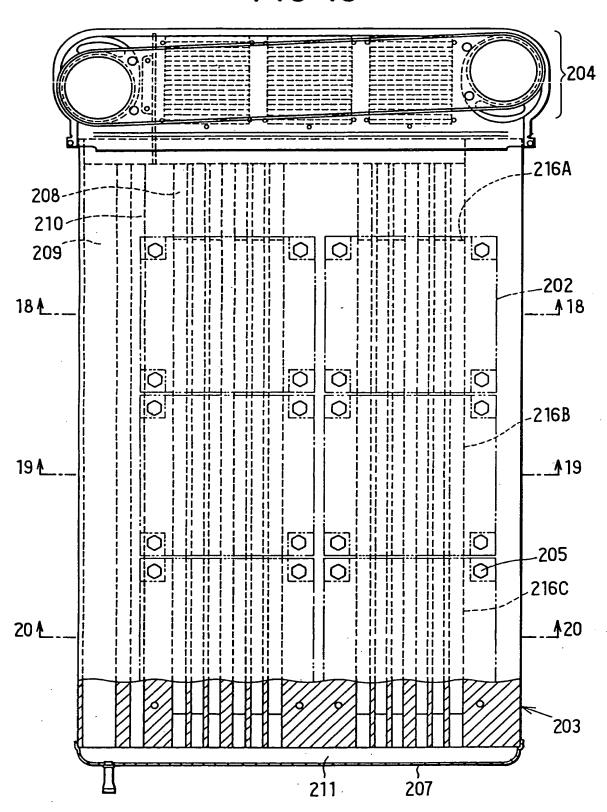
Rel J

Inventor: Hiroyuki Osakabe

ael J. Schmidt, Harness, Dickey & Pierce, Atty. Ref. No.: 4041J0229DVA

12/73

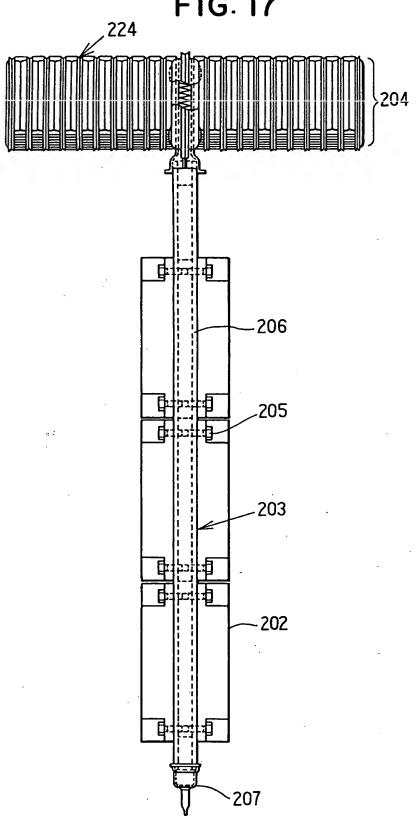
FIG. 16



Inventor: Hiroyuki Osakabe ael J. Schmidt, Harness, Dickey & Pierce, Atty. Ref. No.: 4041J0229DVA

13/73

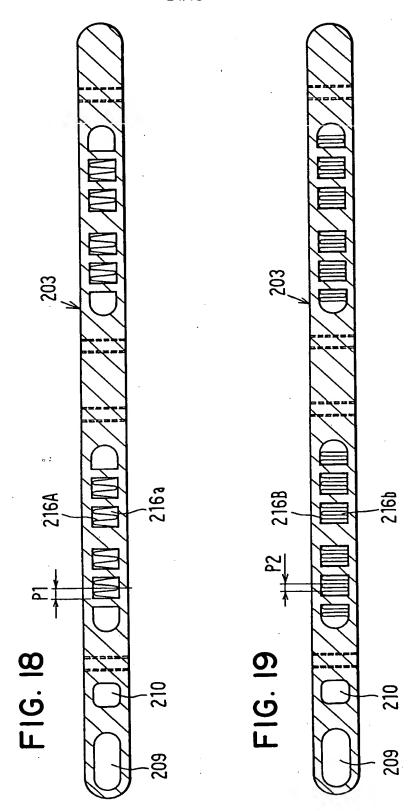
FIG. 17



Title: Cooling Apparatus Boiling and Condensing Refrigerant
Inventor: Hiroyuki Osakabe
Lael J. Schmidt, Harness, Dickey & Pierce,

Atty. Ref. No.: 4041J0229DVA

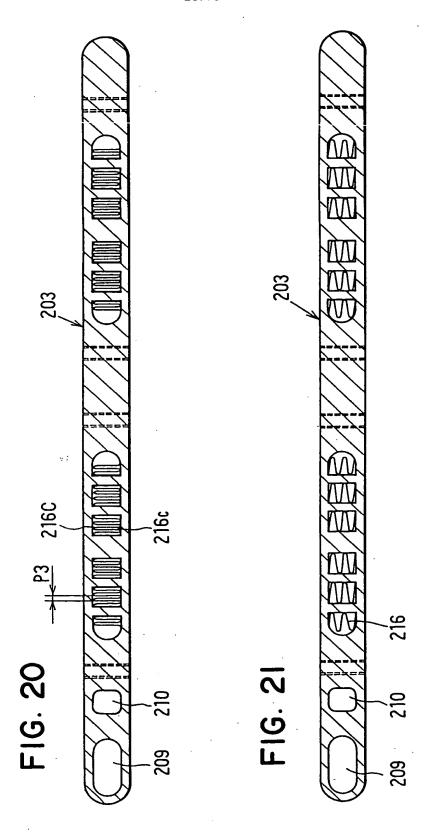
14/73



Title: Cooling Apparatus Boiling and Condensing Refrigerant Inventor: Hiroyuki Osakabe ael J. Schmidt, Harness, Dickey & Pierce,

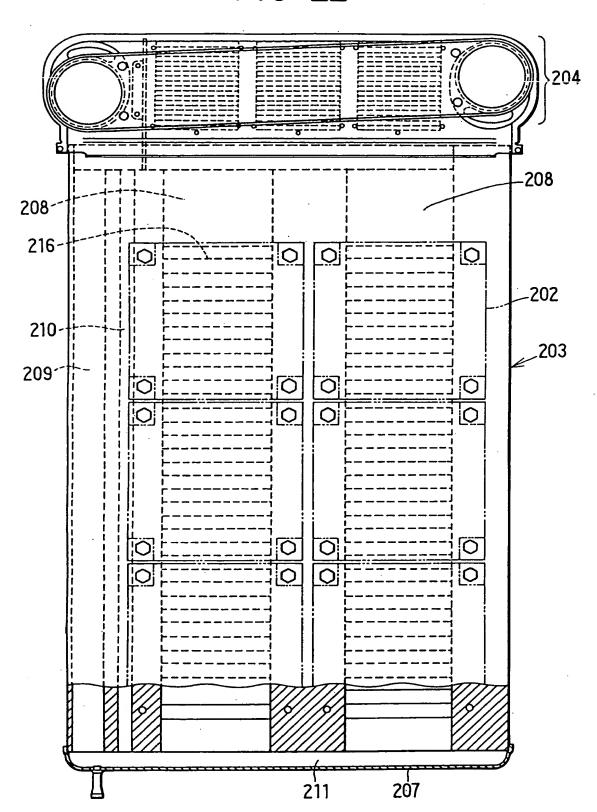
Atty. Ref. No.: 4041J0229DVA

15/73



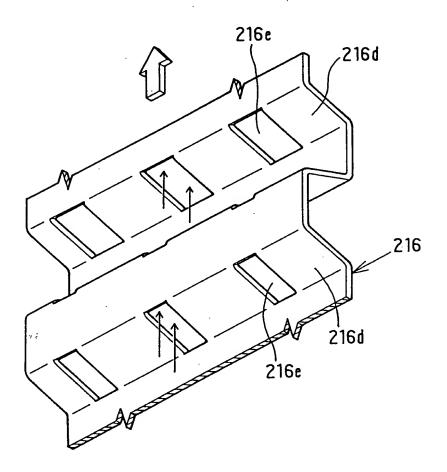
Title: Cooling Apparatus Boiling and Condensing Refrigerant
Inventor: Hiroyuki Osakabe
ael J. Schmidt, Harness, Dickey & Pierce,
Atty. Ref. No.: 4041J0229DVA

FIG. 22



Inventor: Hiroyuki Osakabe ael J. Schmidt, Harness, Dickey & Pierce, Atty. Ref. No.: 4041J0229DVA

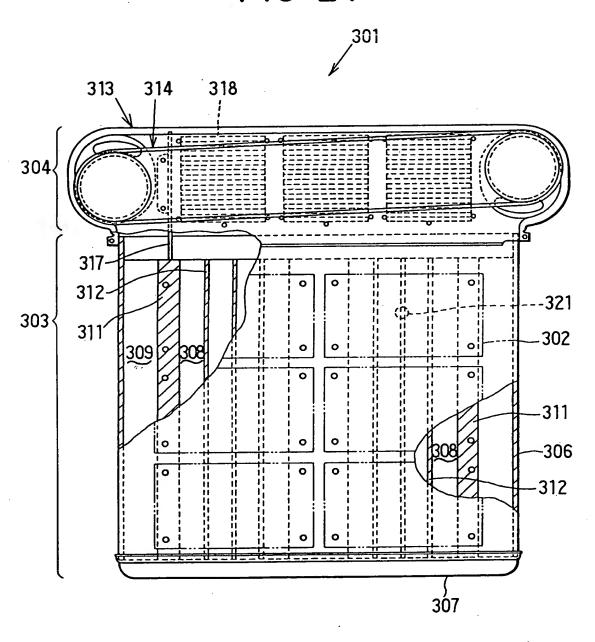
FIG. 23



Title: Cooling Apparatus Boiling and Condensing Refrigerant Inventor: Hiroyuki Osakabe ael J. Schmidt, Harness, Dickey & Pierce,

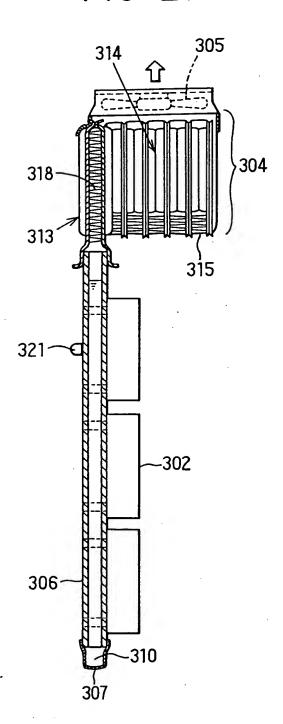
el J. Schmidt, Harness, Dickey & Pier Atty. Ref. No.: 4041J0229DVA

FIG. 24

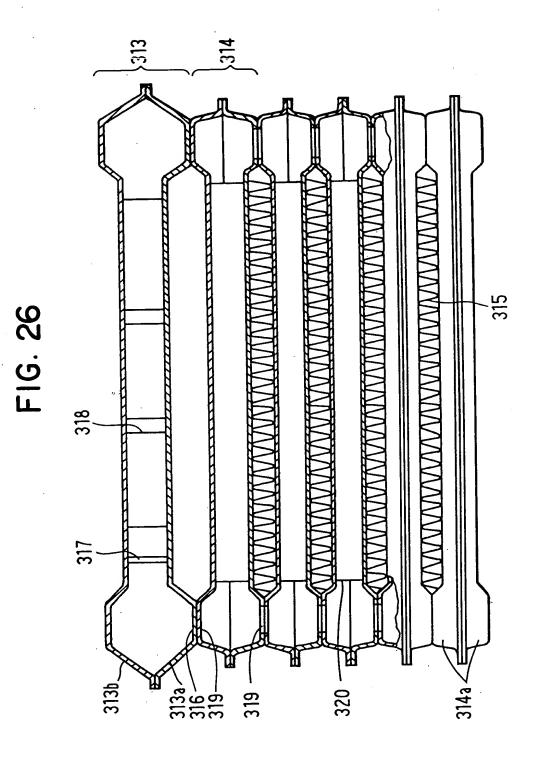


Inventor: Hiroyuki Osakabe kael J. Schmidt, Harness, Dickey & Pierce, Atty. Ref. No.: 4041J0229DVA

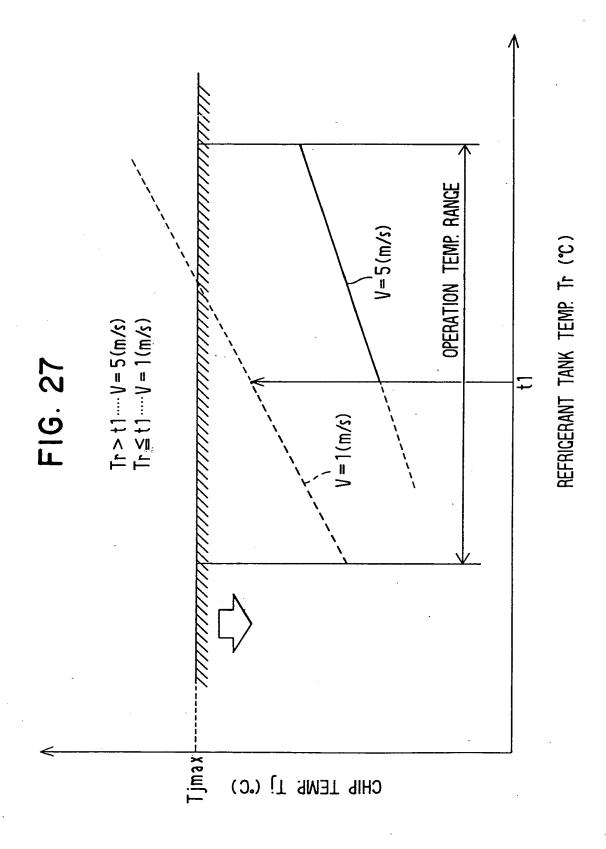
FIG. 25



Inventor: Hiroyuki Osakabe ael J. Schmidt, Harness, Dickey & Pierce, Atty. Ref. No.: 4041J0229DVA

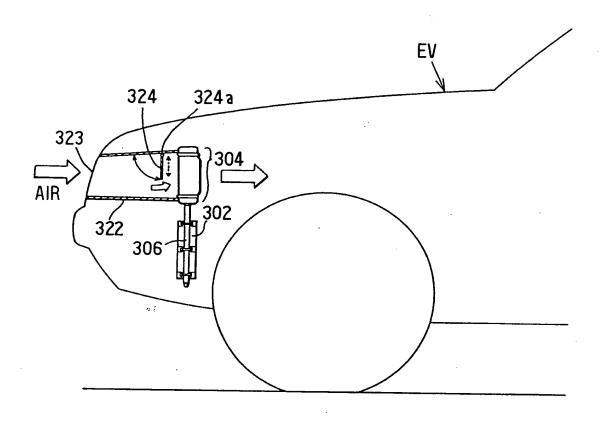


Inventor: Hiroyuki Osakabe ael J. Schmidt, Harness, Dickey & Pierce, Atty. Ref. No.: 4041J0229DVA

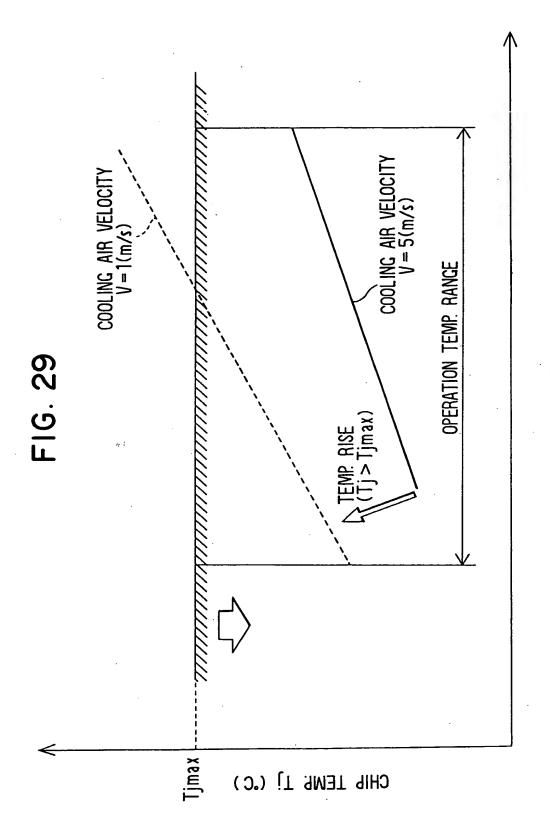


Inventor: Hiroyuki Osakabe ael J. Schmidt, Harness, Dickey & Pierce, Atty. Ref. No.: 4041J0229DVA

FIG. 28

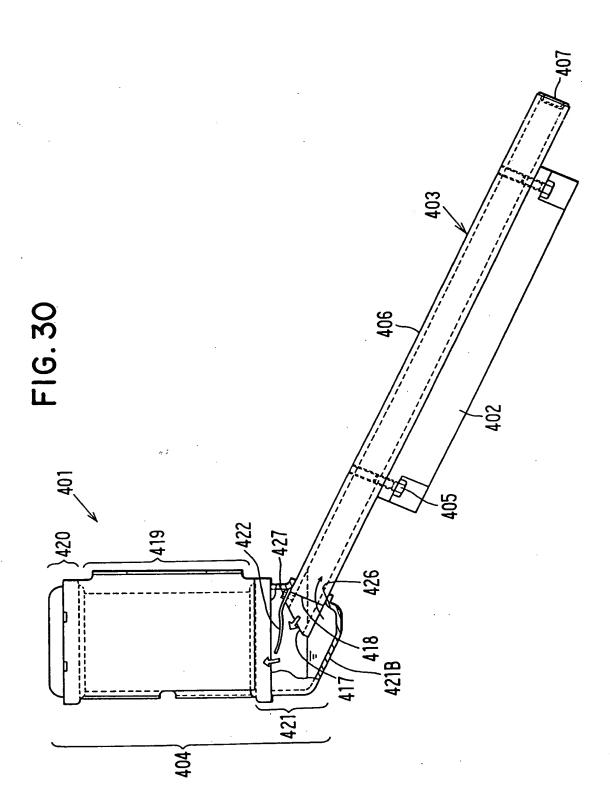


Inventor: Hiroyuki Osakabe ael J. Schmidt, Harness, Dickey & Pierce, Atty. Ref. No.: 4041J0229DVA



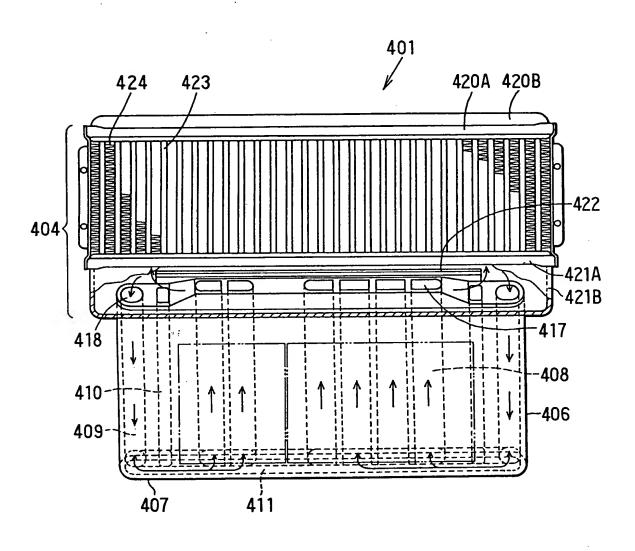
REFRIGERANT TANK TEMP Tr (°C)

Inventor: Hiroyuki Osakabe lael J. Schmidt, Harness, Dickey & Pierce, Atty. Ref. No.: 4041J0229DVA



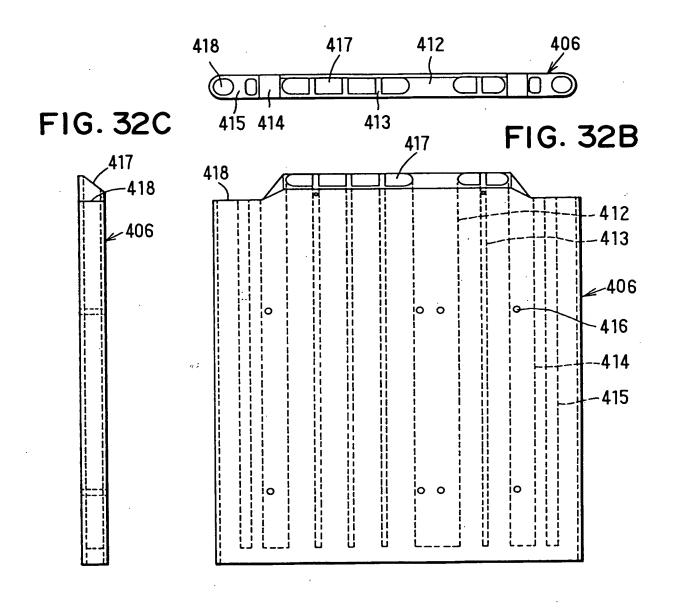
Inventor: Hiroyuki Osakabe ael J. Schmidt, Harness, Dickey & Pierce, Atty. Ref. No.: 4041J0229DVA

FIG.31



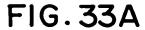
Inventor: Hiroyuki Osakabe ael J. Schmidt, Harness, Dickey & Pierce, Atty. Ref. No.: 4041J0229DVA

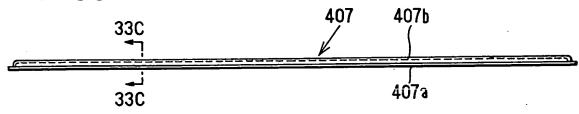
FIG. 32A



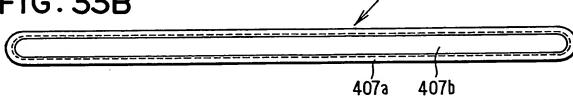
Inventor: Hiroyuki Osakabe ael J. Schmidt, Harness, Dickey & Pierce, Atty. Ref. No.: 4041J0229DVA

27/73









407

FIG.33C

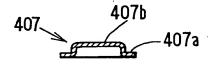
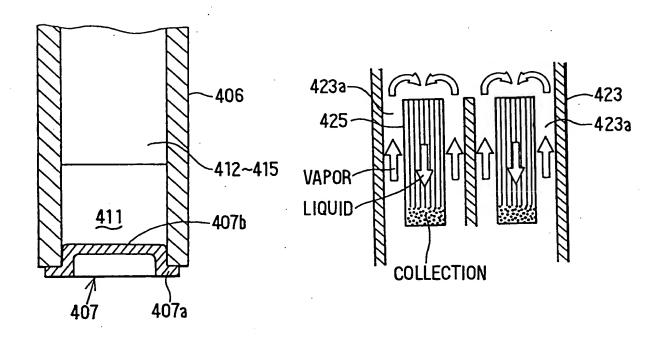
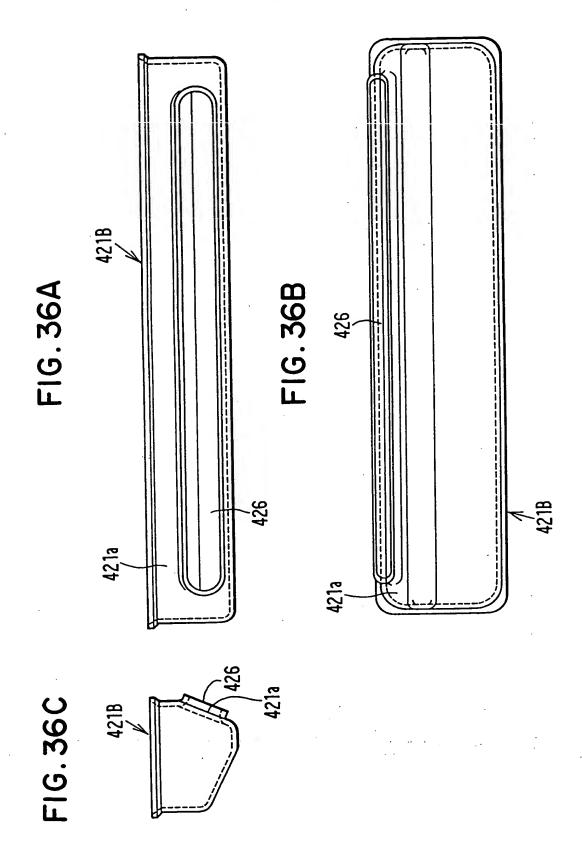


FIG. 34

FIG. 35



Inventor: Hiroyuki Osakabe ael J. Schmidt, Harness, Dickey & Pierce, Atty. Ref. No.: 4041J0229DVA



29/73

**FIG. 37A** 

FIG. 37B

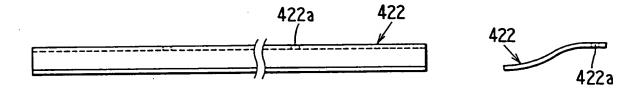
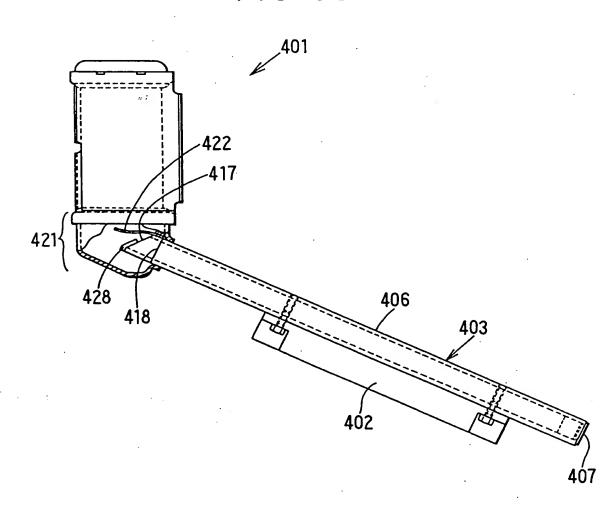
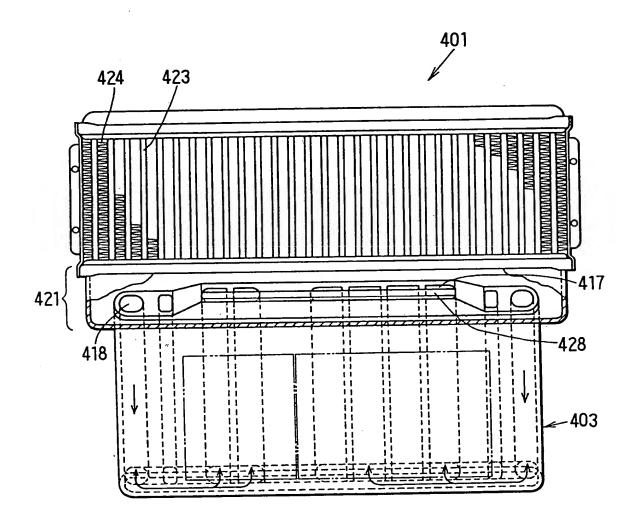


FIG. 38

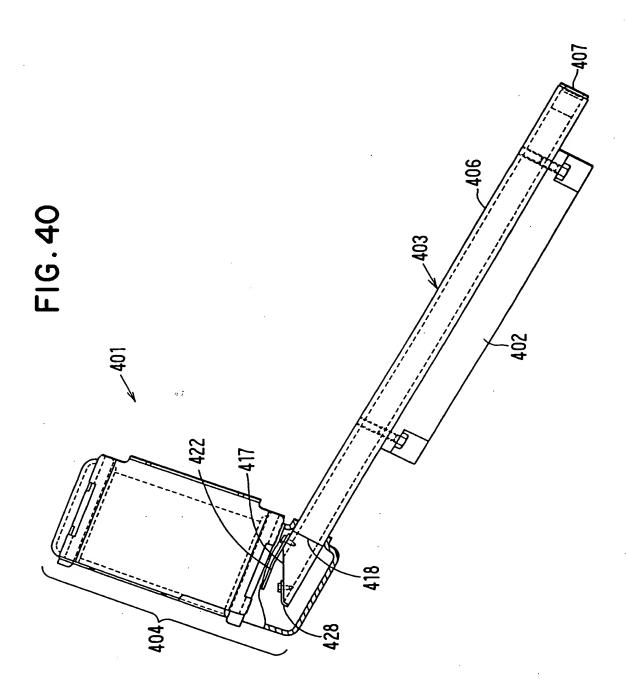


Inventor: Hiroyuki Osakabe ael J. Schmidt, Harness, Dickey & Pierce, Atty. Ref. No.: 4041J0229DVA

FIG.39

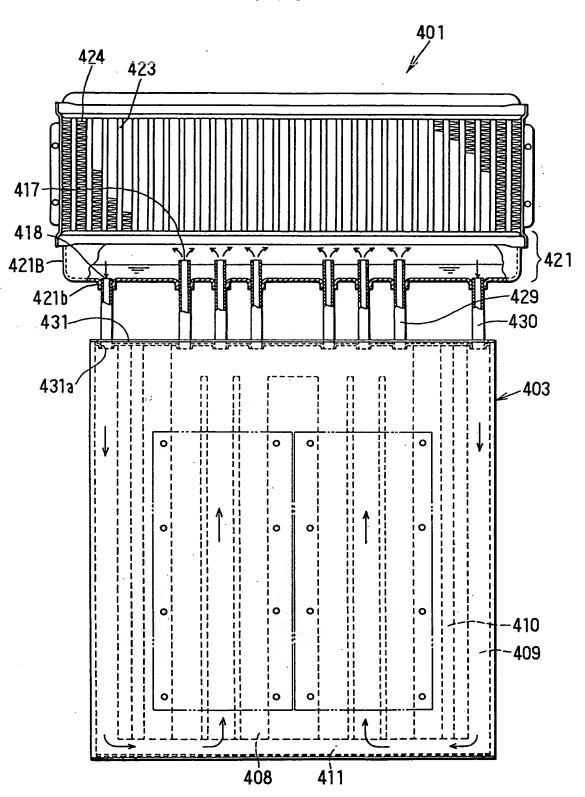


Title: Cooling Apparatus Boiling and Condensing Refrigerant
Inventor: Hiroyuki Osakabe
ael J. Schmidt, Harness, Dickey & Pierce, Atty. Ref. No.: 4041J0229DVA



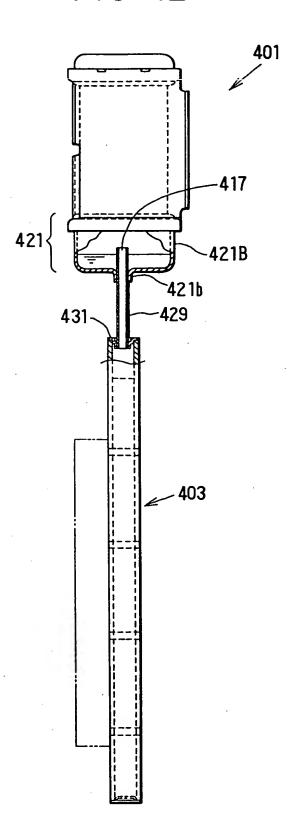
Inventor: Hiroyuki Osakabe ael J. Schmidt, Harness, Dickey & Pierce Atty. Ref. No.: 4041J0229DVA

FIG. 41



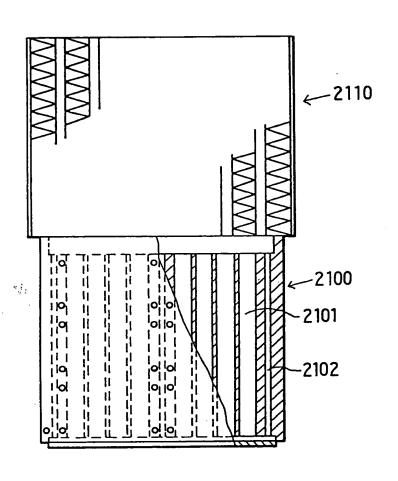
Inventor: Hiroyuki Osakabe ael J. Schmidt, Harness, Dickey & Pierce, Atty. Ref. No.: 4041J0229DVA

FIG.42



Inventor: Hiroyuki Osakabe ael J. Schmidt, Harness, Dickey & Pierce, Atty. Ref. No.: 4041J0229DVA

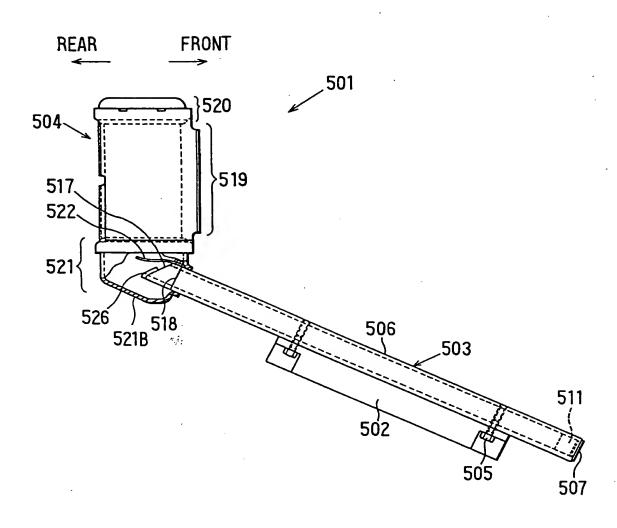
FIG. 43 PRIOR ART



Title: Cooling Apparatus Boiling and Condensing Refrigerant Inventor: Hiroyuki Osakabe ael J. Schmidt, Harness, Dickey & Pierce,

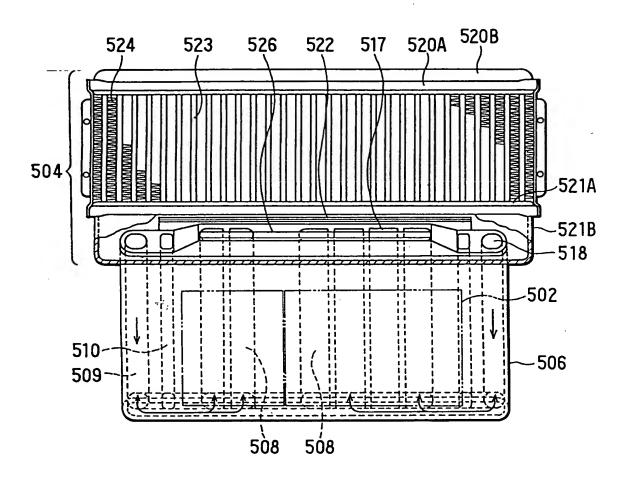
ael J. Schmidt, Harness, Dickey & Pierce, Atty. Ref. No.: 4041J0229DVA

**FIG.44** 



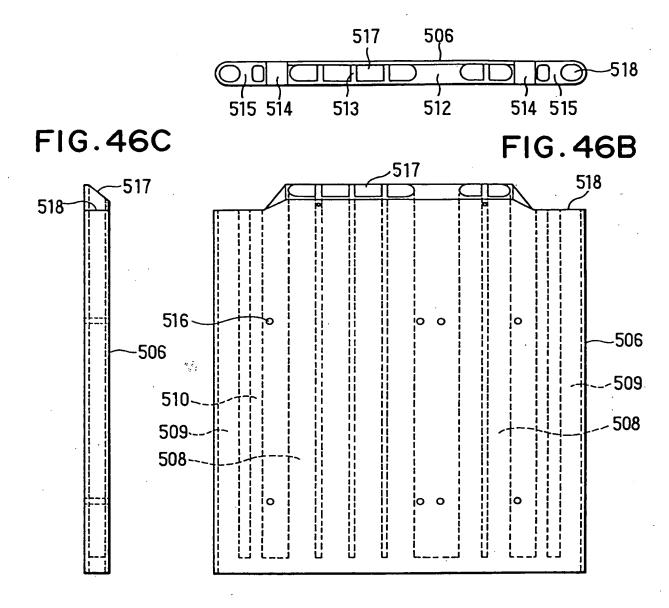
Inventor: Hiroyuki Osakabe ael J. Schmidt, Harness, Dickey & Pierce, Atty. Ref. No.: 4041J0229DVA

FIG. 45



Inventor: Hiroyuki Osakabe ael J. Schmidt, Harness, Dickey & Pierce, Atty. Ref. No.: 4041J0229DVA

FIG.46A



Inventor: Hiroyuki Osakabe ael J. Schmidt, Harness, Dickey & Pierce Atty. Ref. No.: 4041J0229DVA

38/73

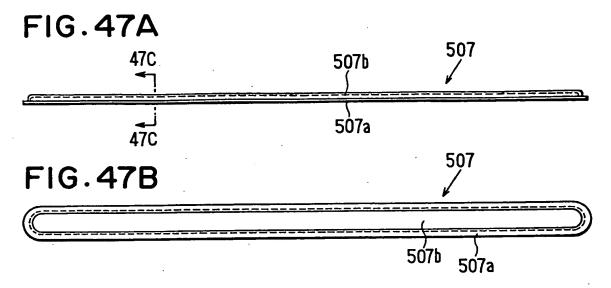


FIG.47C

**5**07

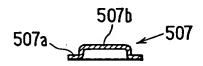
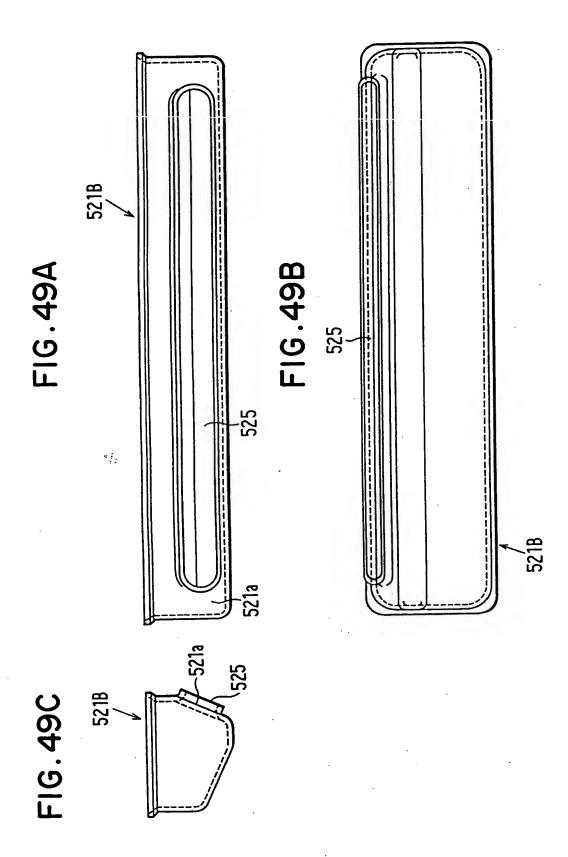


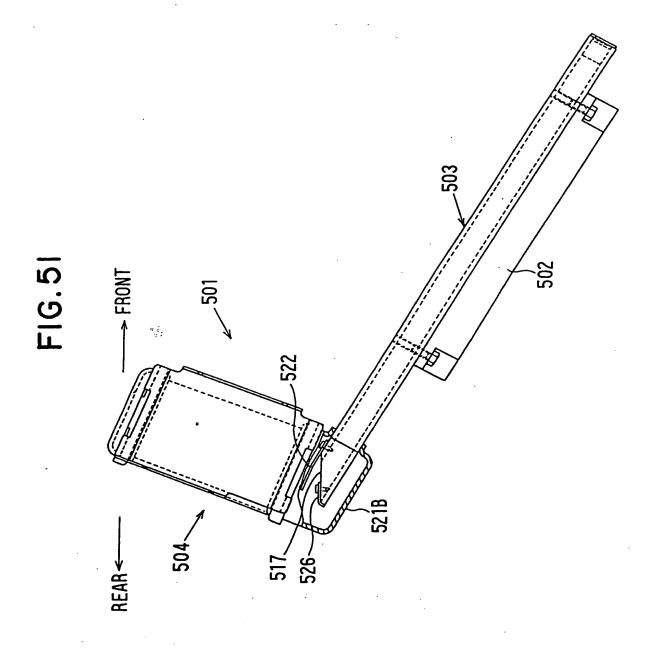
FIG. 50A FIG.48 526 517 503 506 512~515 FIG.50B 511 507b 503 517 526 507a

Title: Cooling Apparatus Boiling and Condensing Refrigerant Inventor: Hiroyuki Osakabe ael J. Schmidt, Harness, Dickey & Pierce,

Atty. Ref. No.: 4041J0229DVA

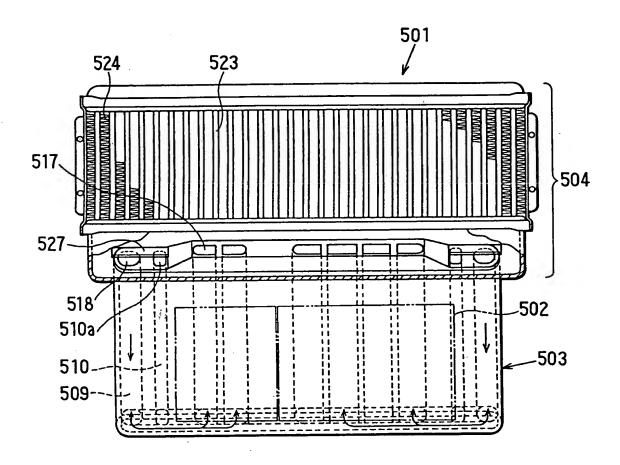


Inventor: Hiroyuki Osakabe hael J. Schmidt, Harness, Dickey & Pierce Atty. Ref. No.: 4041J0229DVA



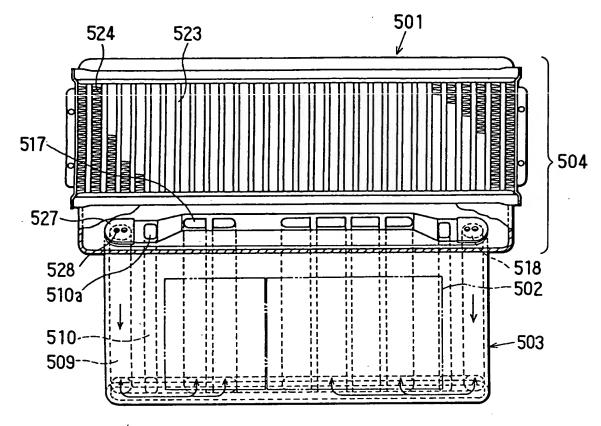
Title: Cooling Apparatus Boiling and Condensing Refrigerant
Inventor: Hiroyuki Osakabe
hael J. Schmidt, Harness, Dickey & Pierce
Atty. Ref. No.: 4041J0229DVA

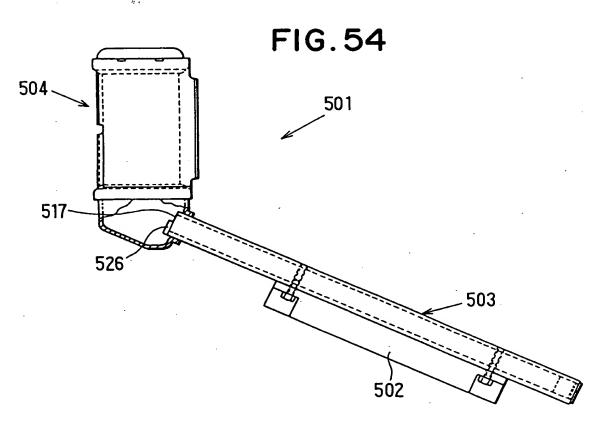
FIG.52



Inventor: Hiroyuki Osakabe nael J. Schmidt, Harness, Dickey & Pierce Atty. Ref. No.: 4041J0229DVA

FIG.53





Inventor: Hiroyuki Osakabe
hael J. Schmidt, Harness, Dickey & Pierce
Atty. Ref. No.: 4041J0229DVA

FIG. 55

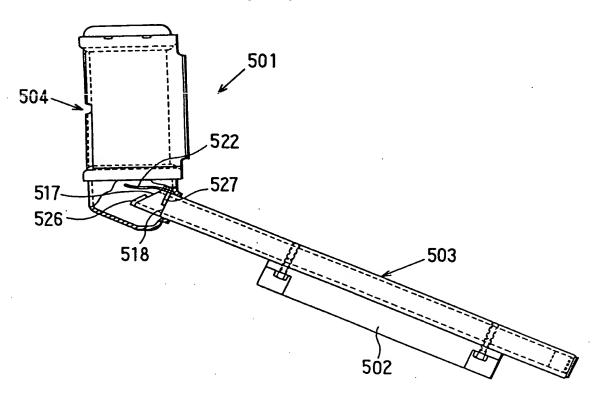
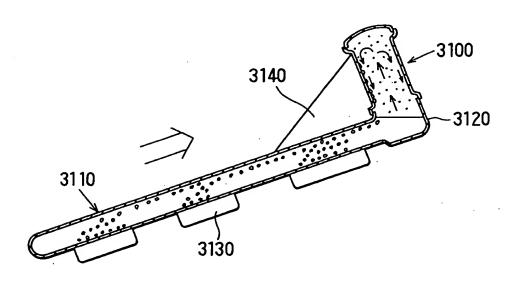
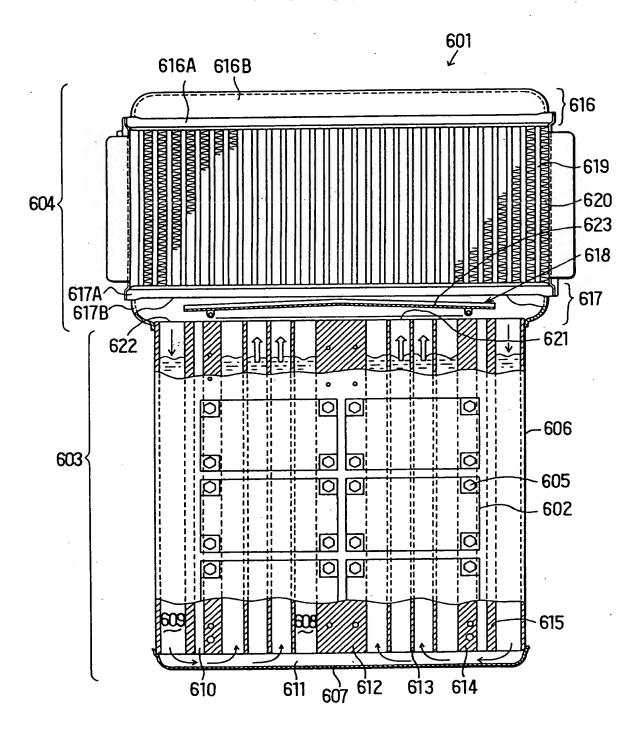


FIG. 56 PRIOR ART



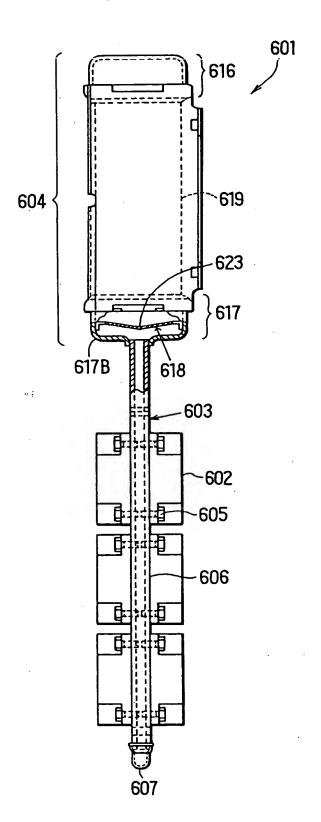
Title: Cooling Apparatus Boiling and Condensing Refrigerant
Inventor: Hiroyuki Osakabe
hael J. Schmidt, Harness, Dickey & Pierce
Atty. Ref. No.: 4041J0229DVA

FIG. 57



Inventor: Hiroyuki Osakabe ael J. Schmidt, Harness, Dickey & Pierce, Atty. Ref. No.: 4041J0229DVA

FIG. 58



hael J. Schmidt, Harness, Dickey & Pierce Atty. Ref. No.: 4041J0229DVA

46/73

FIG. 59A

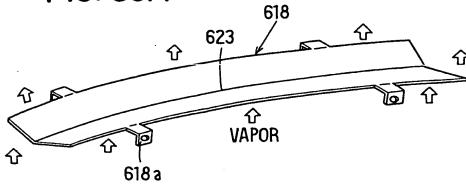


FIG. 59B

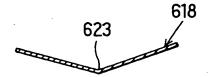


FIG. 60A

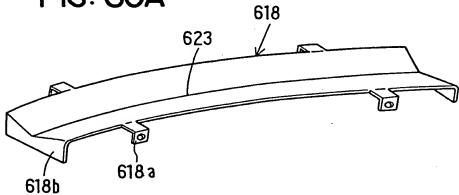
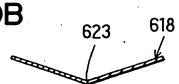


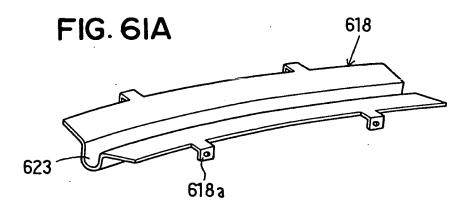
FIG. 60B

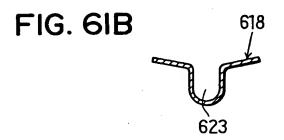


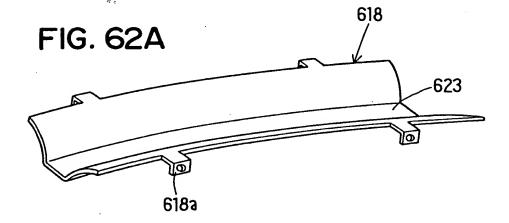
hael J. Schmidt, Harness, Dickey & Pierce Atty. Ref. No.: 4041J0229DVA

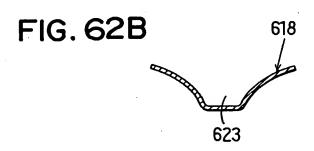
. . . . . .













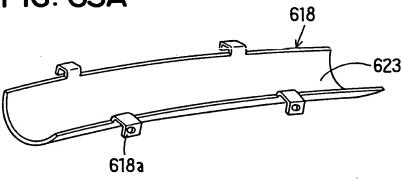


FIG. 63B



FIG. 64A

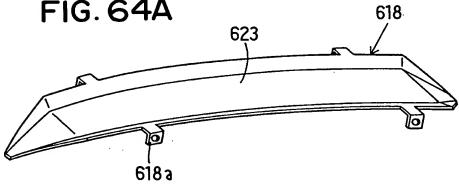


FIG. 64B



IMFFALL OMBUL

Inventor: Hiroyuki Osakabe hael J. Schmidt, Harness, Dickey & Pierce Atty. Ref. No.: 4041J0229DVA

49/73

FIG. 65A

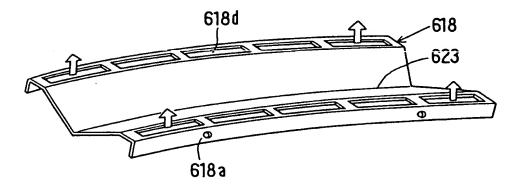


FIG. 65B

e ;

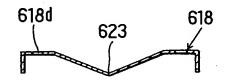
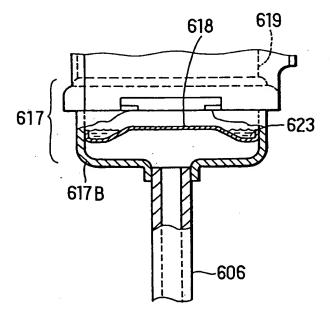


FIG. 66



Inventor: Hiroyuki Osakabe

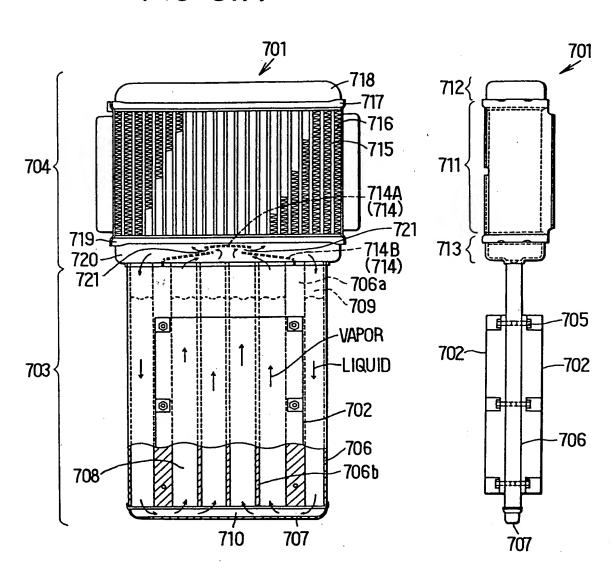
hael J. Schmidt, Harness, Dickey & Pierce

Atty. Ref. No.: 4041J0229DVA

50/73

FIG. 67A

FIG. 67B



Inventor: Hiroyuki Osakabe hael J. Schmidt, Harness, Dickey & Pierce Atty. Ref. No.: 4041J0229DVA

FIG. 68A

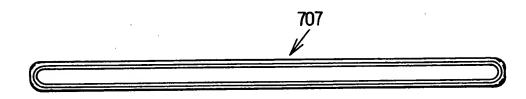


FIG. 68B

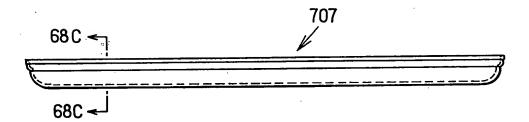
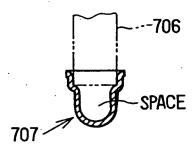


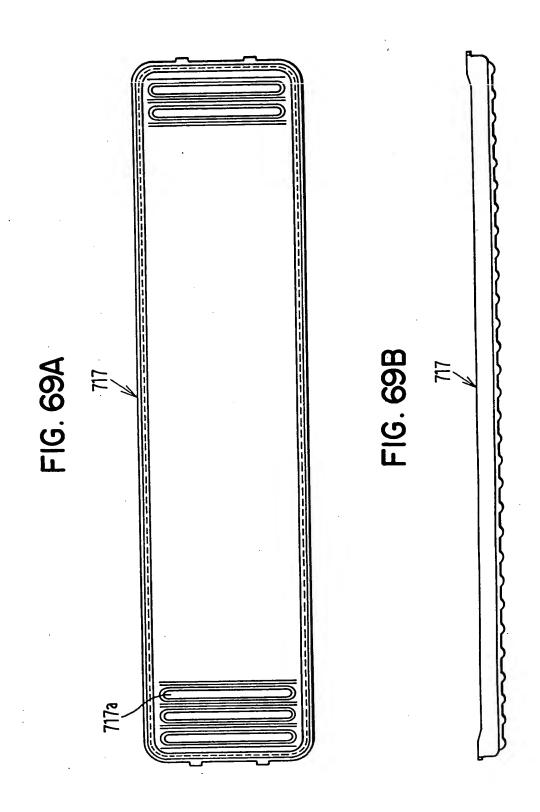
FIG. 68C



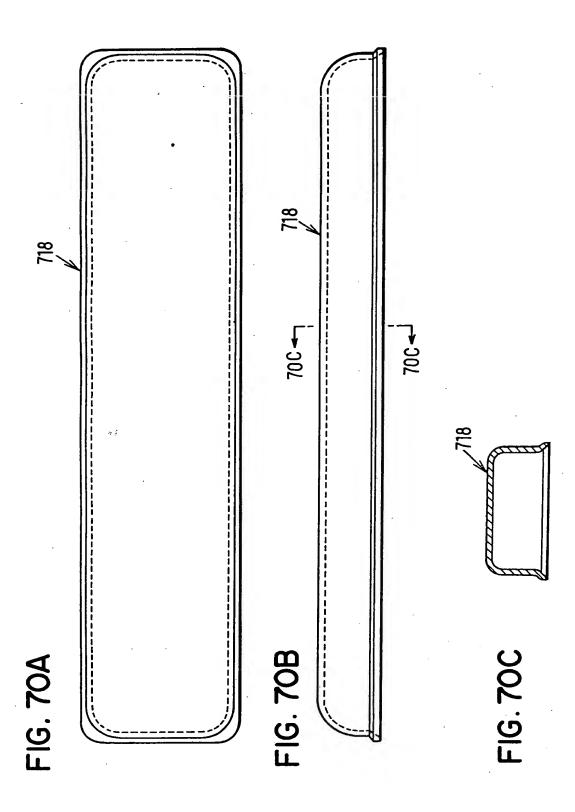
Inventor: Hiroyuki Osakabe hael J. Schmidt, Harness, Dickey & Pierce Atty. Ref. No.: 4041J0229DVA

7. KCI. NO.. 404

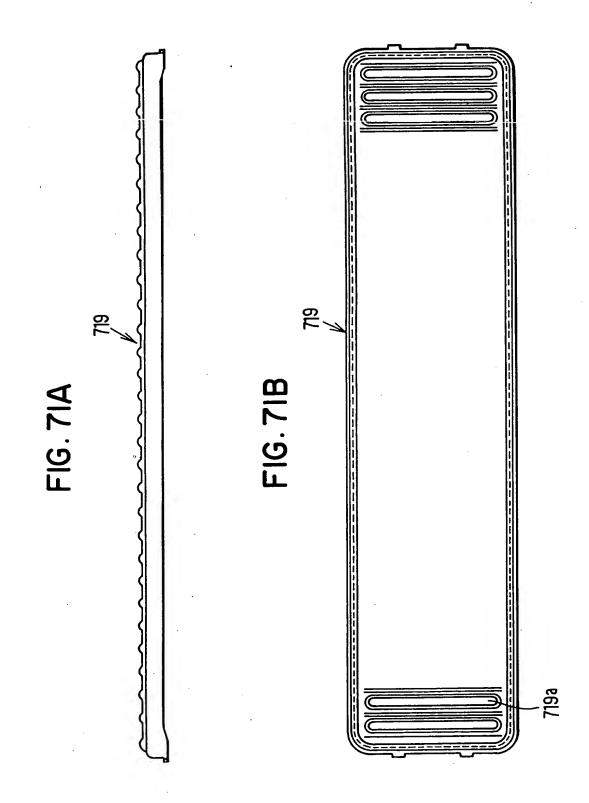
52/73



Inventor: Hiroyuki Osakabe hael J. Schmidt, Harness, Dickey & Pierce Atty. Ref. No.: 4041J0229DVA

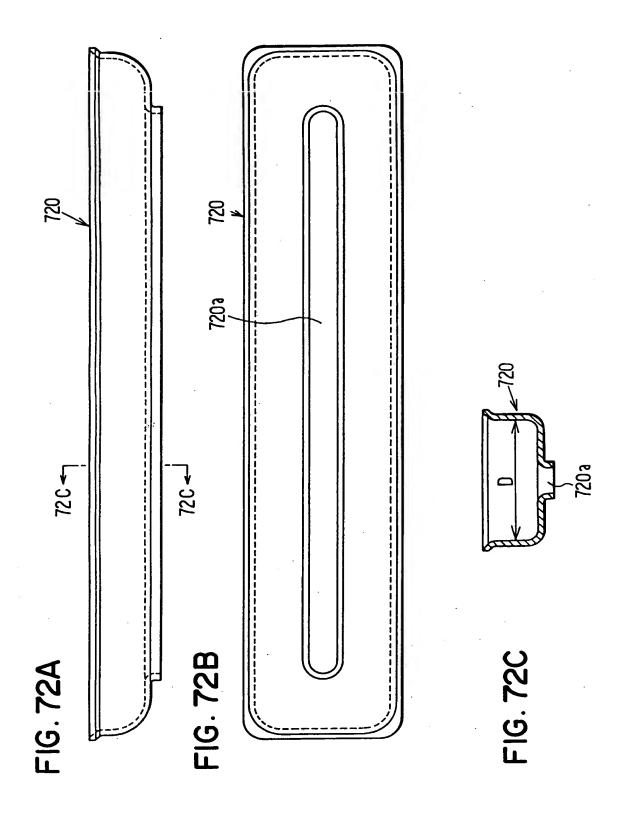


Inventor: Hiroyuki Osakabe hael J. Schmidt, Harness, Dickey & Pierce Atty. Ref. No.: 4041J0229DVA



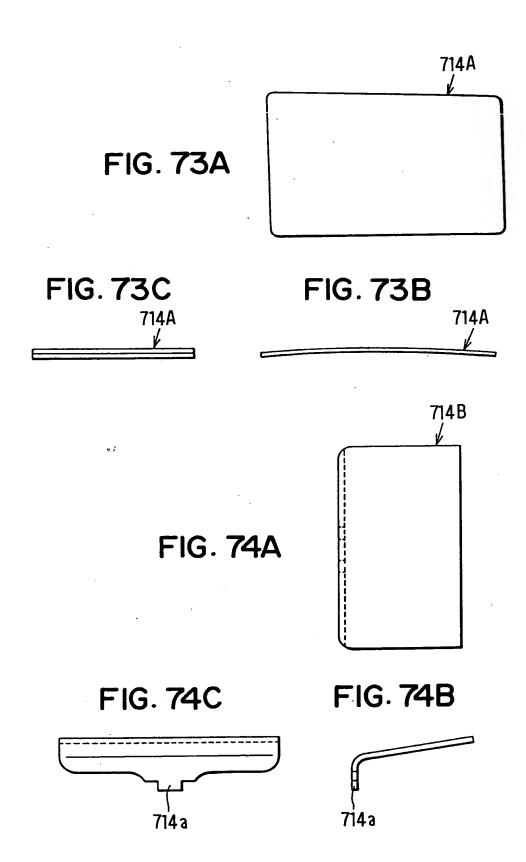
Inventor: Hiroyuki Osakabe hael J. Schmidt, Harness, Dickey & Pierce

Atty. Ref. No.: 4041J0229DVA



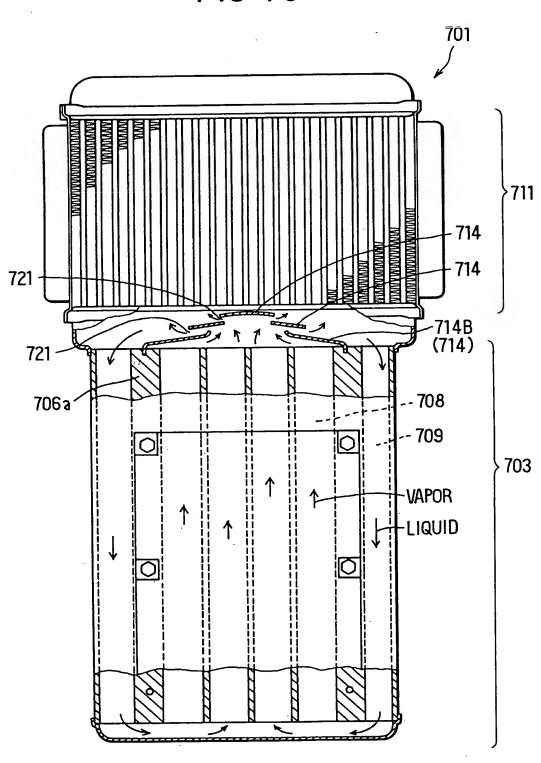
Inventor: Hiroyuki Osakabe hael J. Schmidt, Harness, Dickey & Pierce

Atty. Ref. No.: 4041J0229DVA



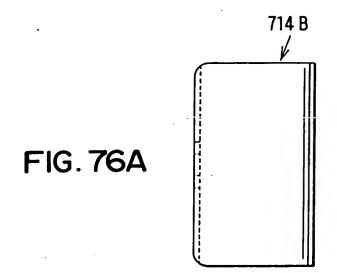
Inventor: Hiroyuki Osakabe hael J. Schmidt, Harness, Dickey & Pierce Atty. Ref. No.: 4041J0229DVA

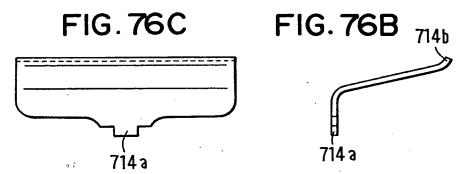
FIG. 75

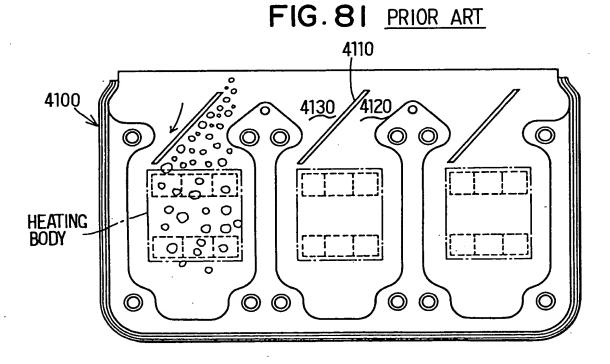


Inventor: Hiroyuki Osakabe

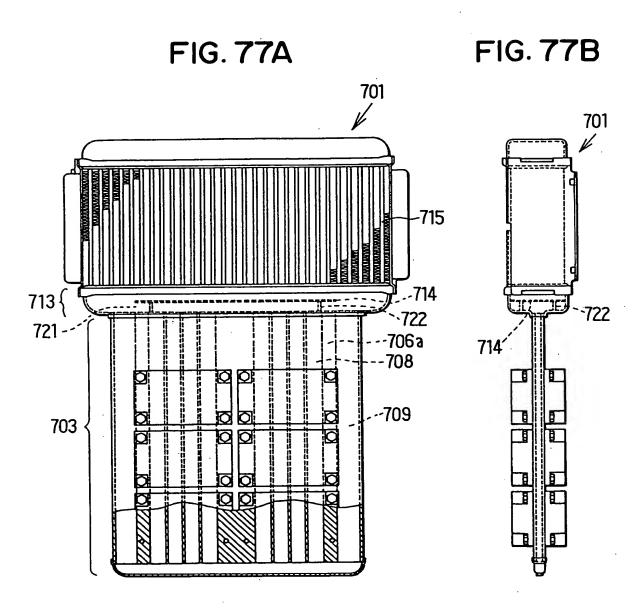
hael J. Schmidt, Harness, Dickey & Pierce Atty. Ref. No.: 4041J0229DVA





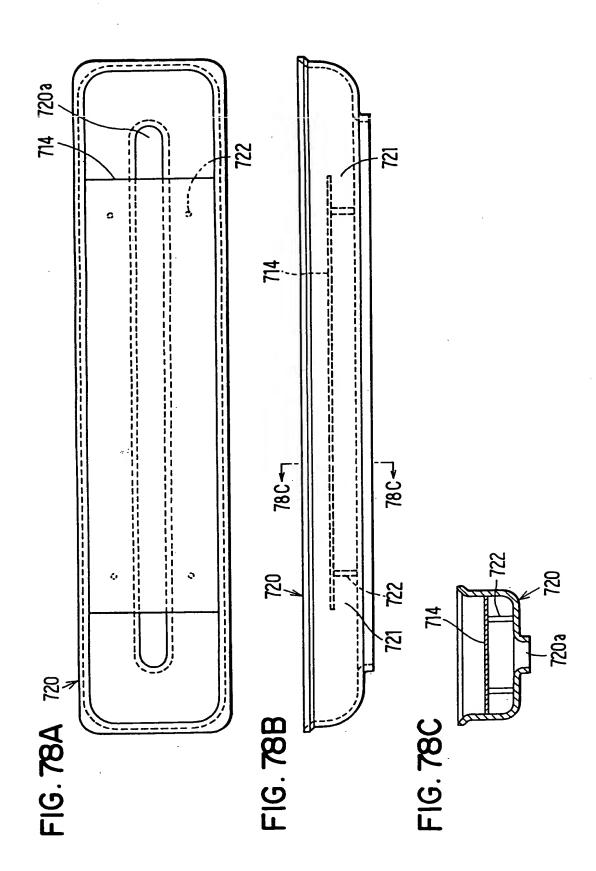


Inventor: Hiroyuki Osakabe hael J. Schmidt, Harness, Dickey & Pierce Atty. Ref. No.: 4041J0229DVA



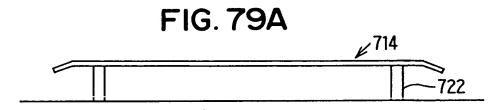
Inventor: Hiroyuki Osakabe hael J. Schmidt, Harness, Dickey & Pierce

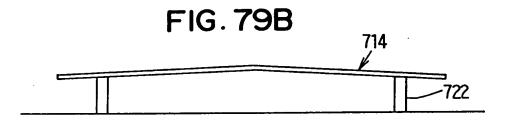
Atty. Ref. No.: 4041J0229DVA

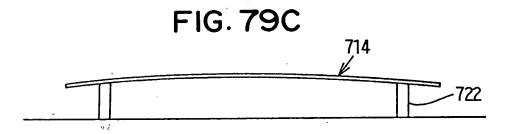


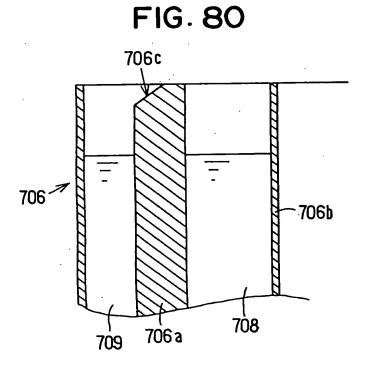
Inventor: Hiroyuki Osakabe

hael J. Schmidt, Harness, Dickey & Pierce Atty. Ref. No.: 4041J0229DVA





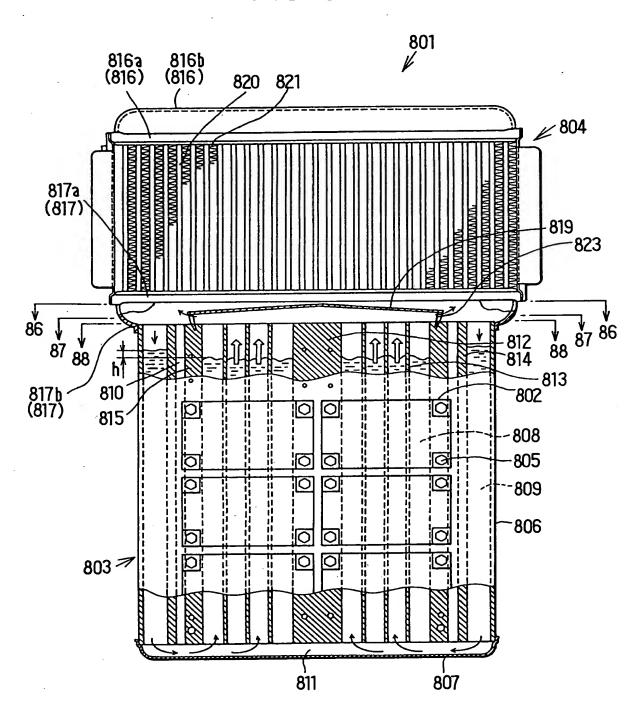




Title: Cooling Apparatus Boiling and Condensing Refrigerant Inventor: Hiroyuki Osakabe hael J. Schmidt, Harness, Dickey & Pierce

Atty. Ref. No.: 4041J0229DVA

FIG. 82

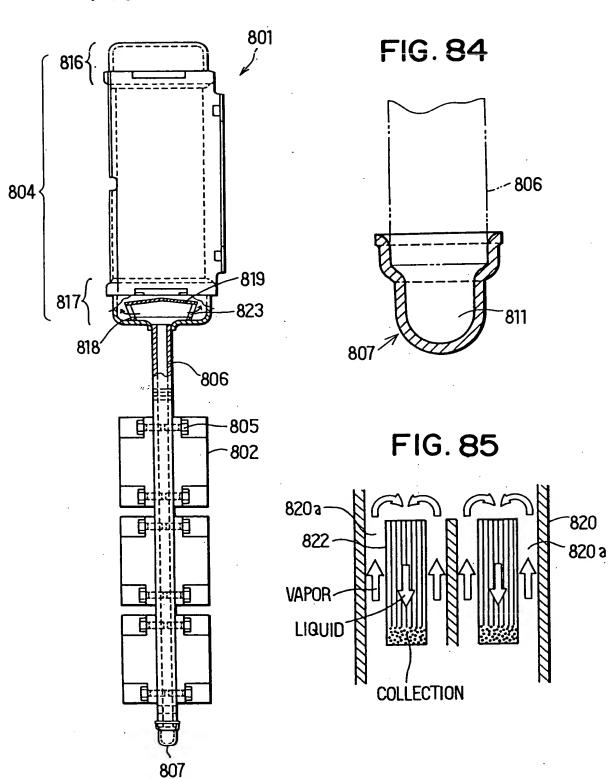


Title: Cooling Apparatus Boiling and Condensing Refrigerant Inventor: Hiroyuki Osakabe

hael J. Schmidt, Harness, Dickey & Pierce

Atty. Ref. No.: 4041J0229DVA

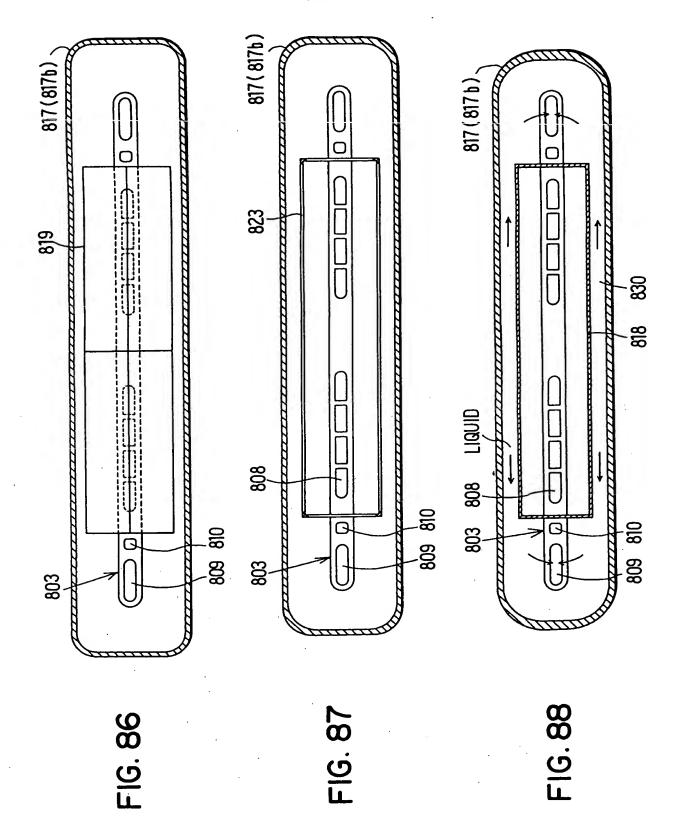
FIG. 83



Inventor: Hiroyuki Osakabe hael J. Schmidt, Harness, Dickey & Pierce

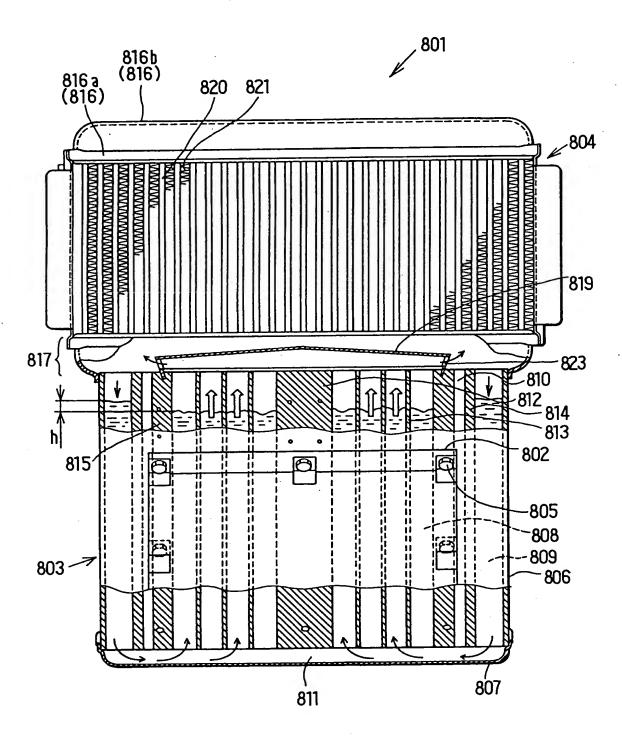
Atty. Ref. No.: 4041J0229DVA

64/73



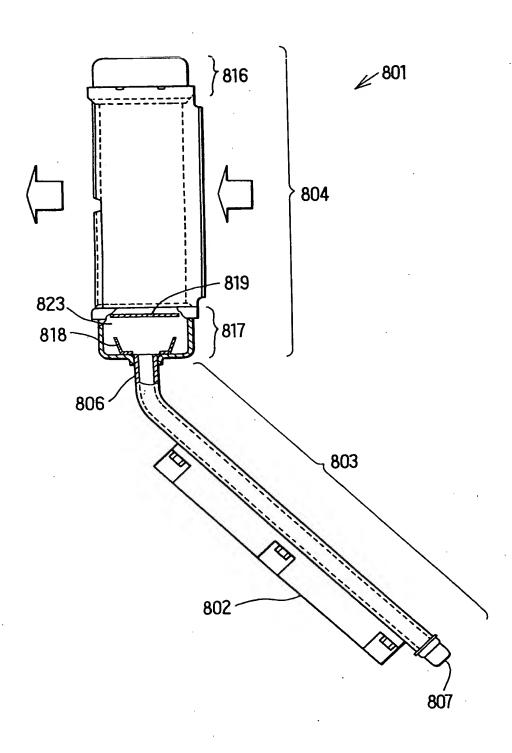
Inventor: Hiroyuki Osakabe hael J. Schmidt, Harness, Dickey & Pierce Atty. Ref. No.: 4041J0229DVA

FIG. 89



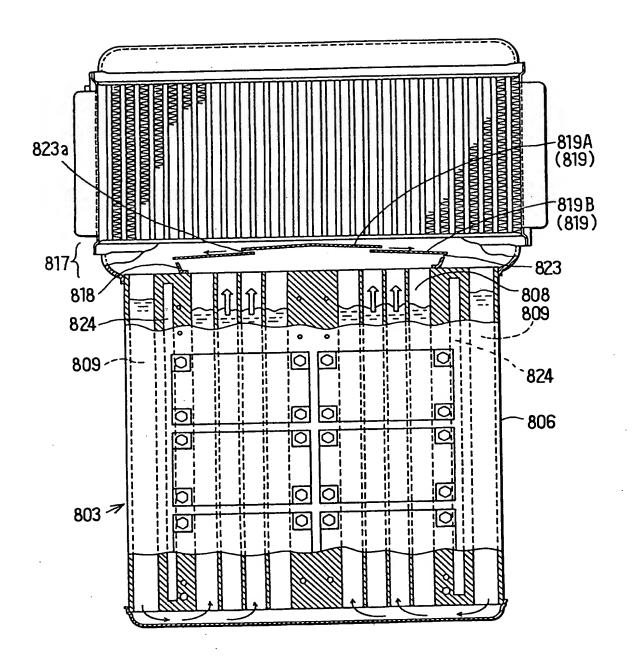
Title: Cooling Apparatus Boiling and Condensing Refrigerant
Inventor: Hiroyuki Osakabe
hael J. Schmidt, Harness, Dickey & Pierce
Atty. Ref. No.: 4041J0229DVA

FIG. 90



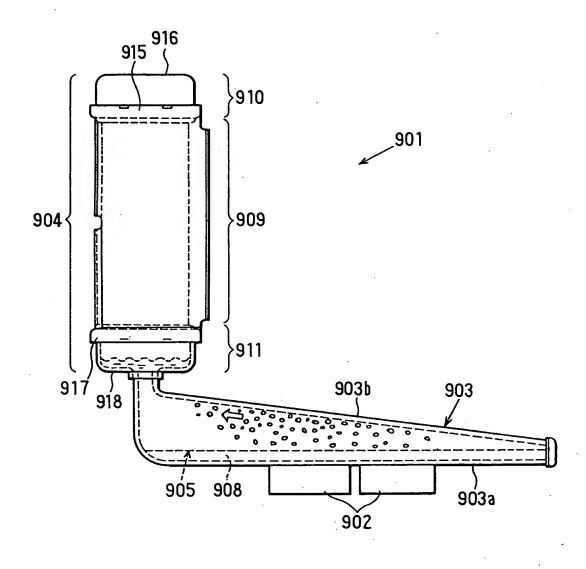
Inventor: Hiroyuki Osakabe hael J. Schmidt, Harness, Dickey & Pierc Atty. Ref. No.: 4041J0229DVA

FIG. 91



Inventor: Hiroyuki Osakabe hael J. Schmidt, Harness, Dickey & Pierce Atty. Ref. No.: 4041J0229DVA

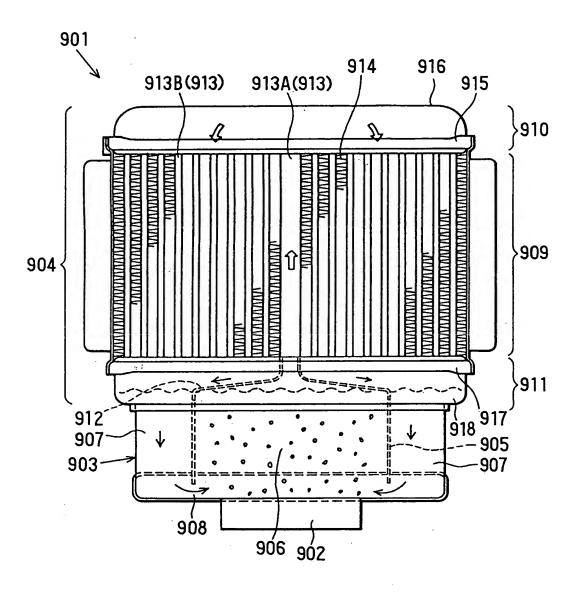
FIG.92



Title: Cooling Apparatus Boiling and Condensing Refrigerant
Inventor: Hiroyuki Osakabe

chael J. Schmidt, Harness, Dickey & Piero Atty. Ref. No.: 4041J0229DVA

FIG. 93



Inventor: Hiroyuki Osakabe chael J. Schmidt, Harness, Dickey & Pierc

Atty. Ref. No.: 4041J0229DVA

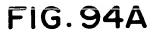


FIG. 94B

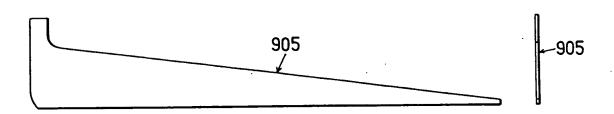
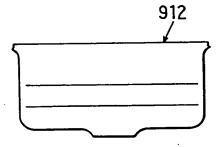
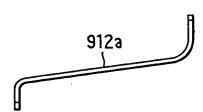


FIG. 95A

FIG.95B





Inventor: Hiroyuki Osakabe chael J. Schmidt, Harness, Dickey & Pierd Atty. Ref. No.: 4041J0229DVA

\_...

71/73

FIG.96

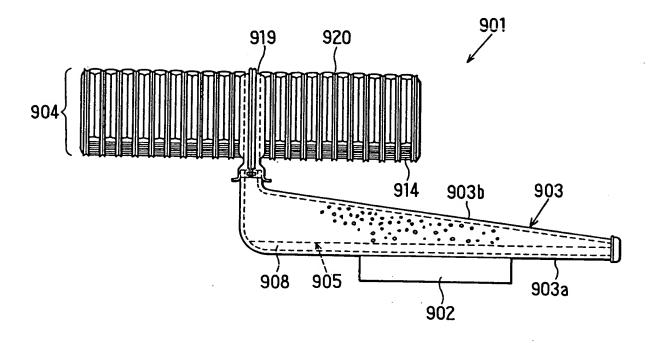
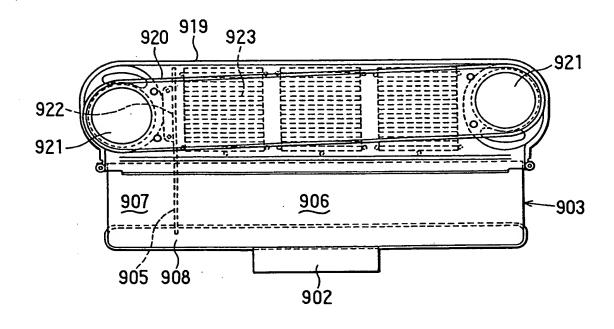


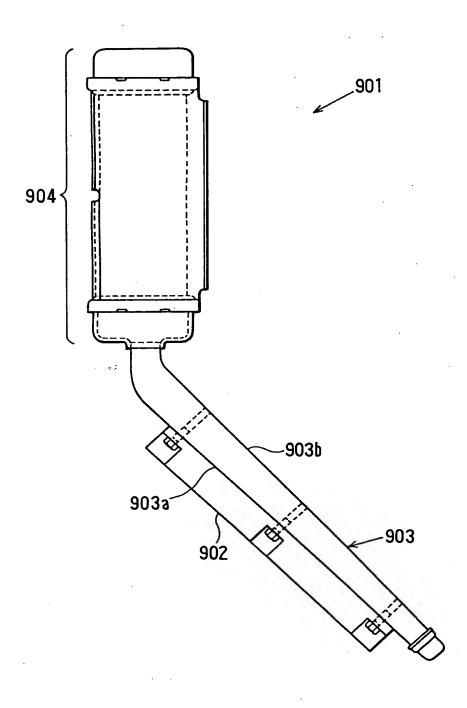
FIG.97



Inventor: Hiroyuki Osakabe chael J. Schmidt, Harness, Dickey & Piero Atty. Ref. No.: 4041J0229DVA

**#0.** 

FIG. 98



Title: Cooling Apparatus Boiling and Condensing Refrigerant Inventor: Hiroyuki Osakabe

chael J. Schmidt, Harness, Dickey & Pierd Atty. Ref. No.: 4041J0229DVA

FIG.99

